

BASIC ARCHITECTURE OF DESKTOP FILTER SYSTEM

Fig 1

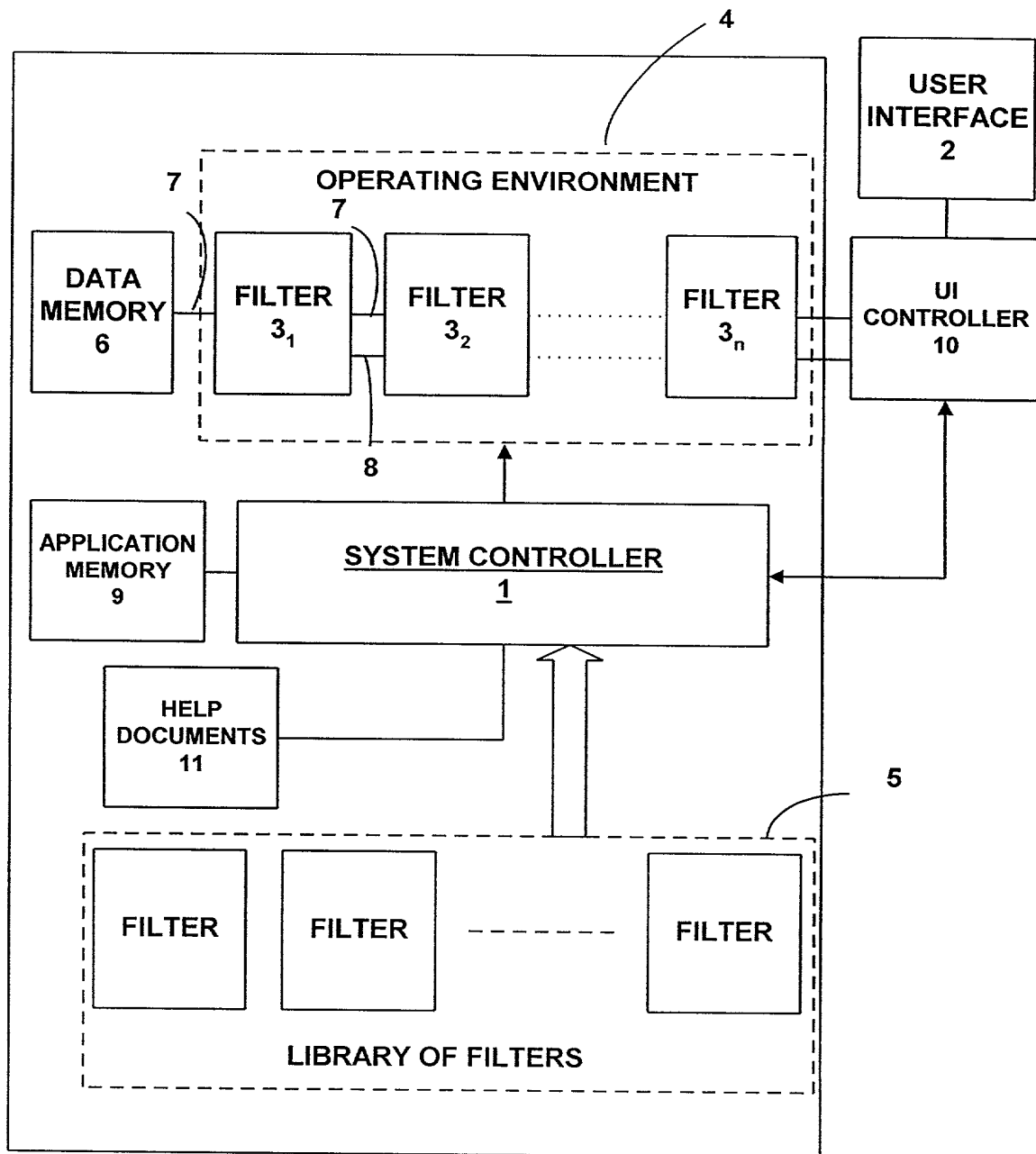


Fig 2

**DISPLAY SCREEN OF THE GRAPHICAL
USER INTERFACE**

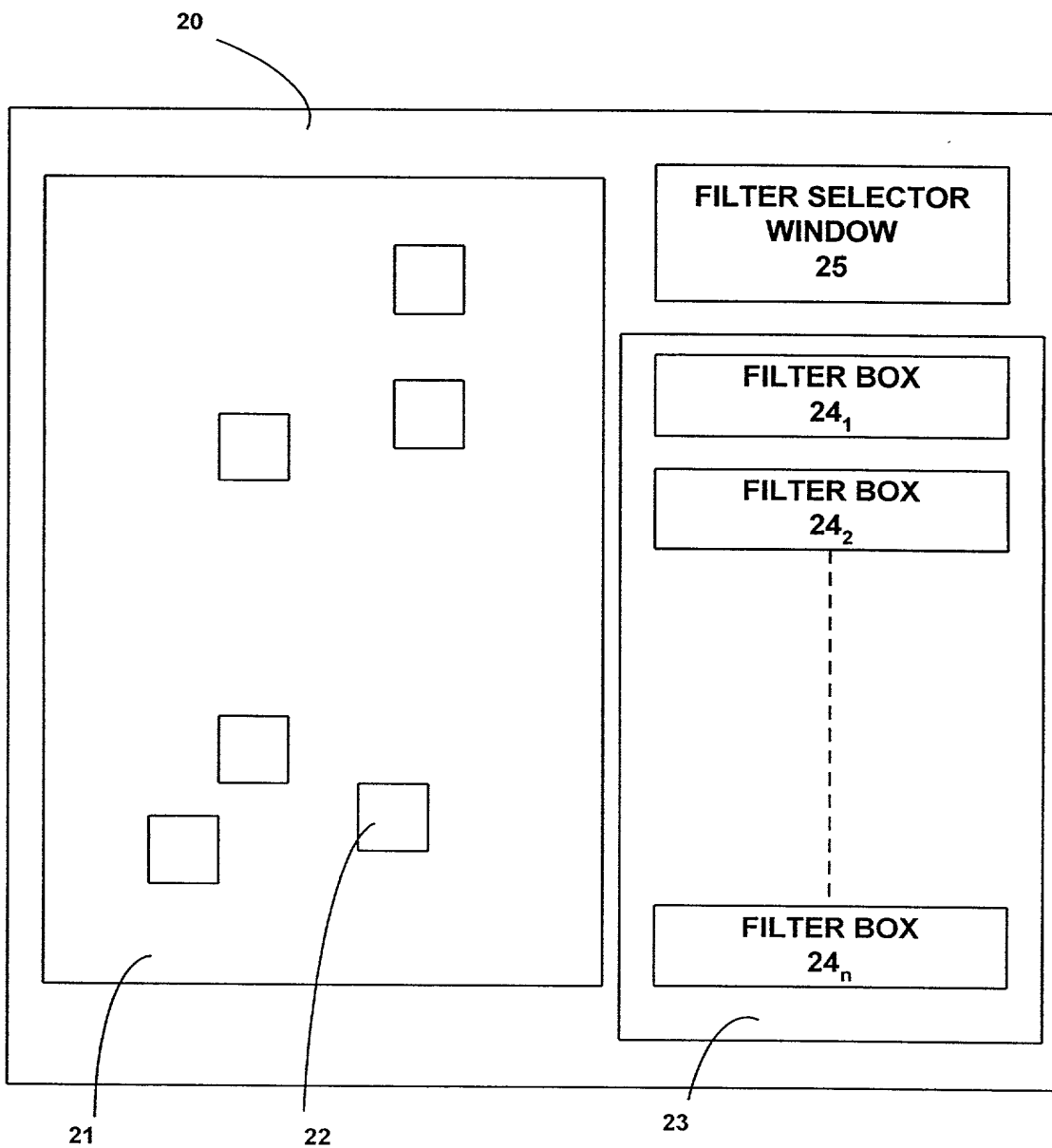


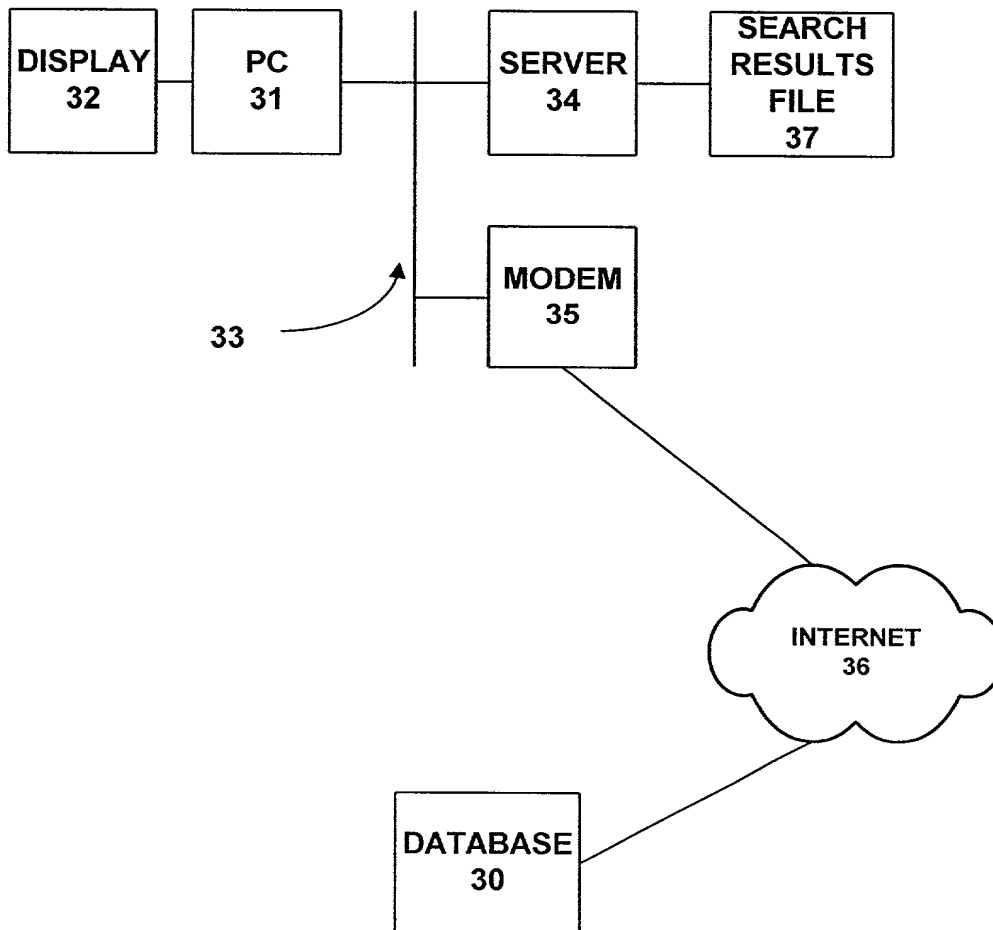
Fig 3**DATABASE SEARCH VIA THE INTERNET**

Fig 4

FILTER SELECTOR WINDOW

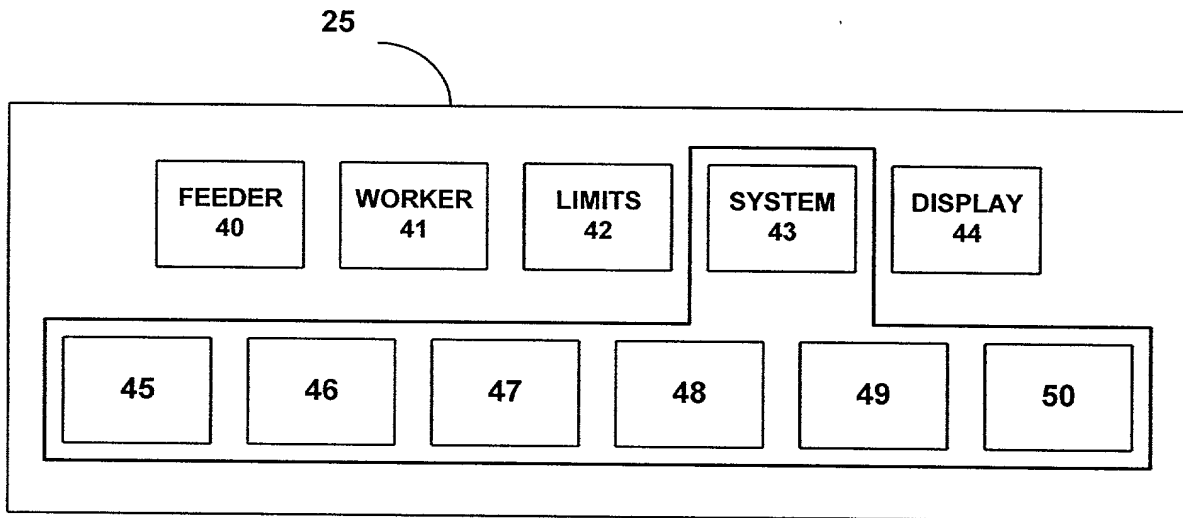


Fig 5

GRAPHICAL USER INTERFACE USED IN THE EXAMPLE OF PATENT
DOCUMENT RETRIEVAL

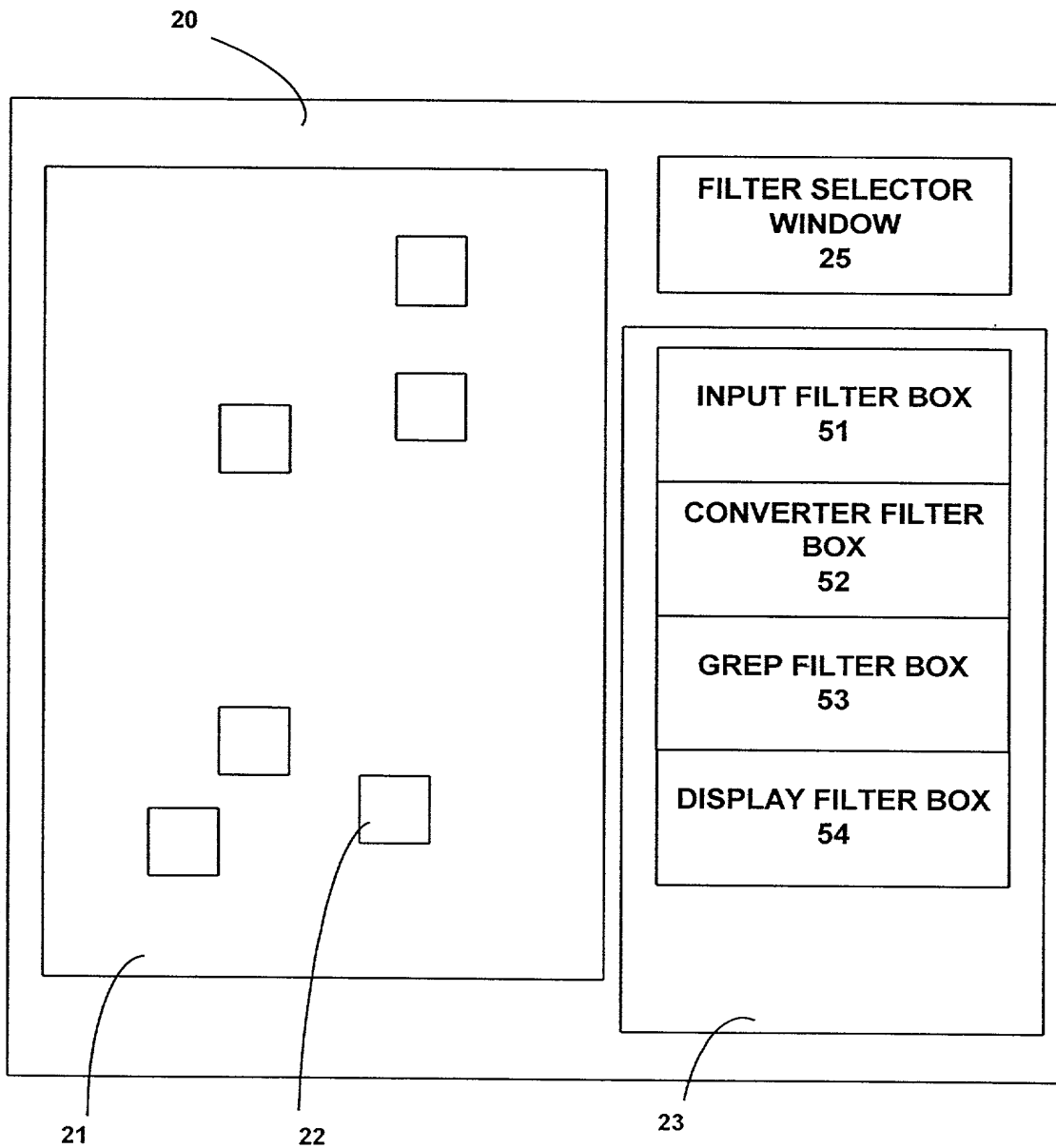


Fig 6

FILTER SEQUENCE FOR DATABASE SEARCH RESULTS

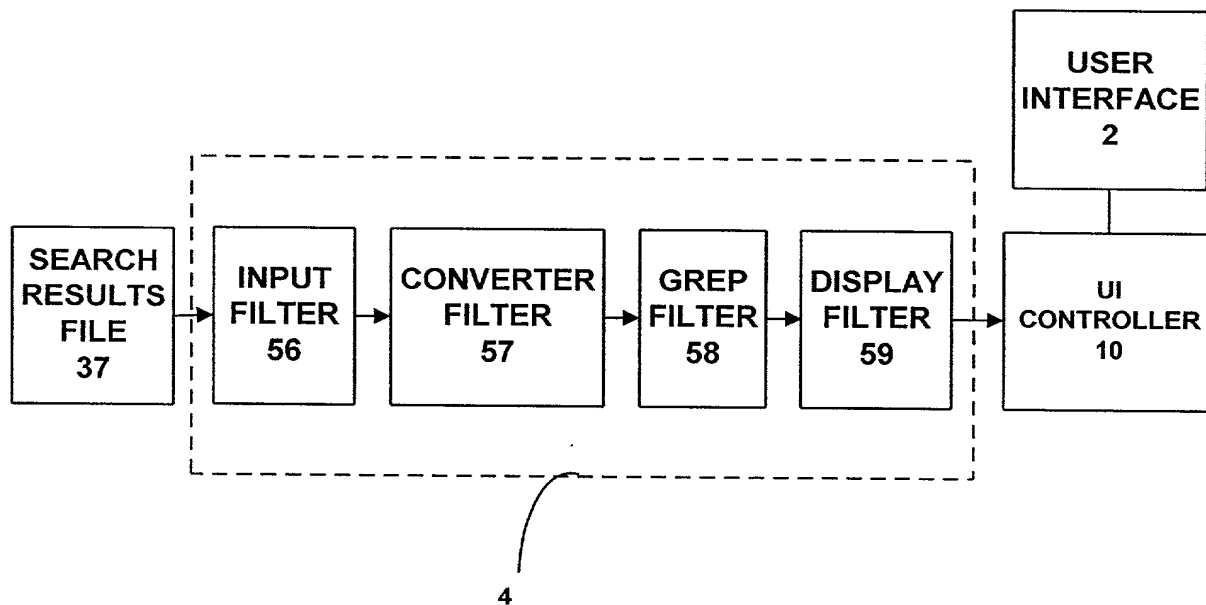


Fig 7A

GREP FILTER BOX SHOWING MENU

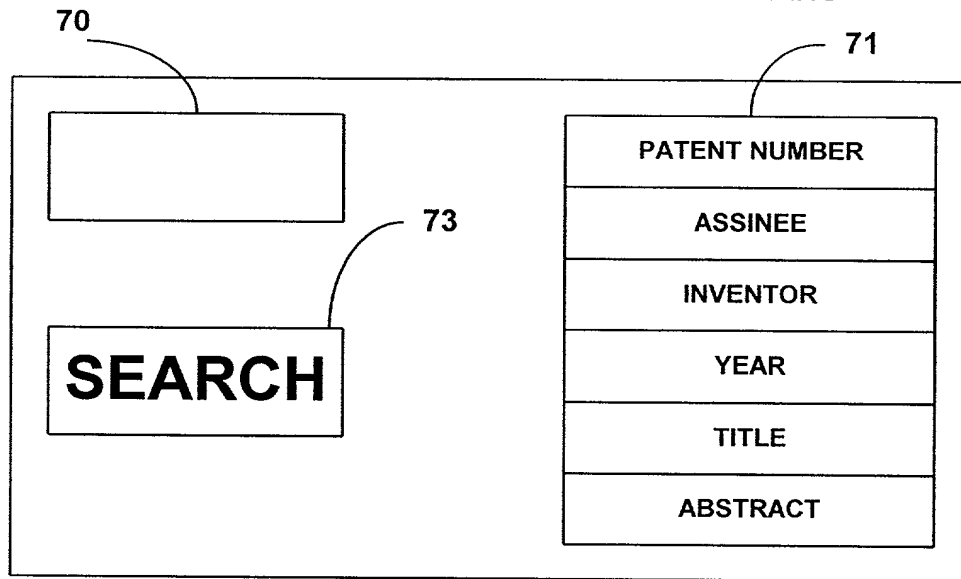
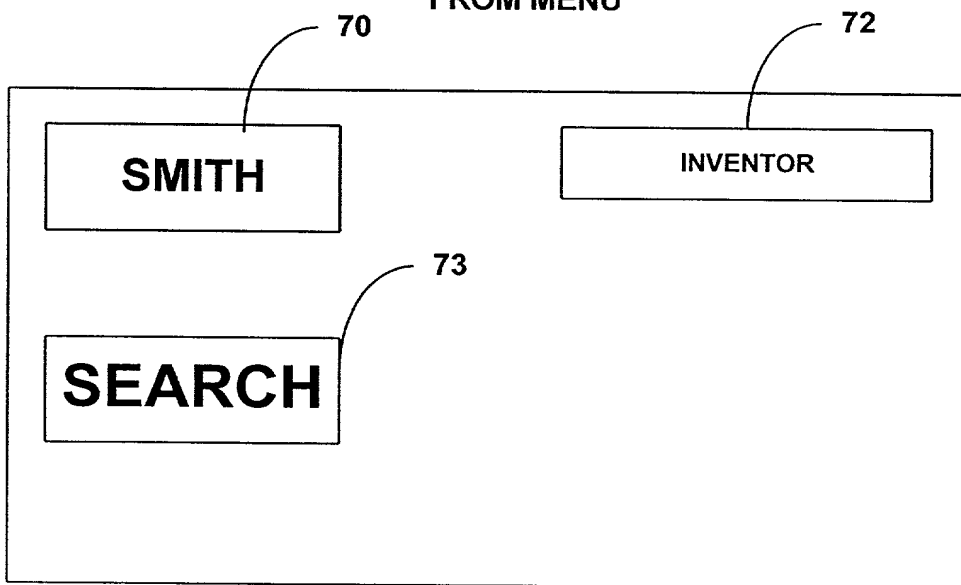


Fig 7B

GREP FILTER BOX AFTER SELECTION
FROM MENU

FILTER SEQUENCE FOR PROCESSING A COLLECTION OF DATA OBJECTS

Fig 8

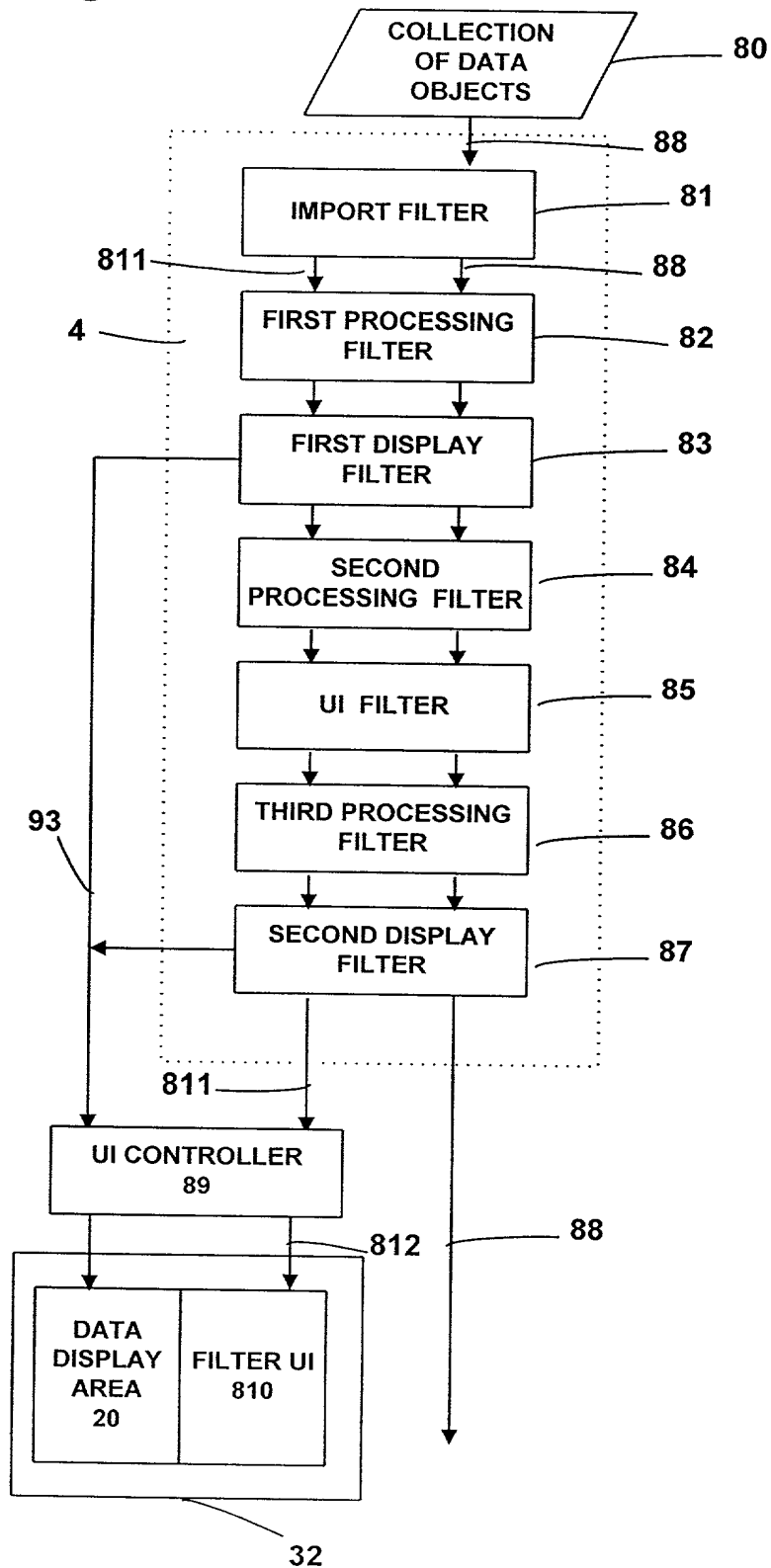


Fig 9

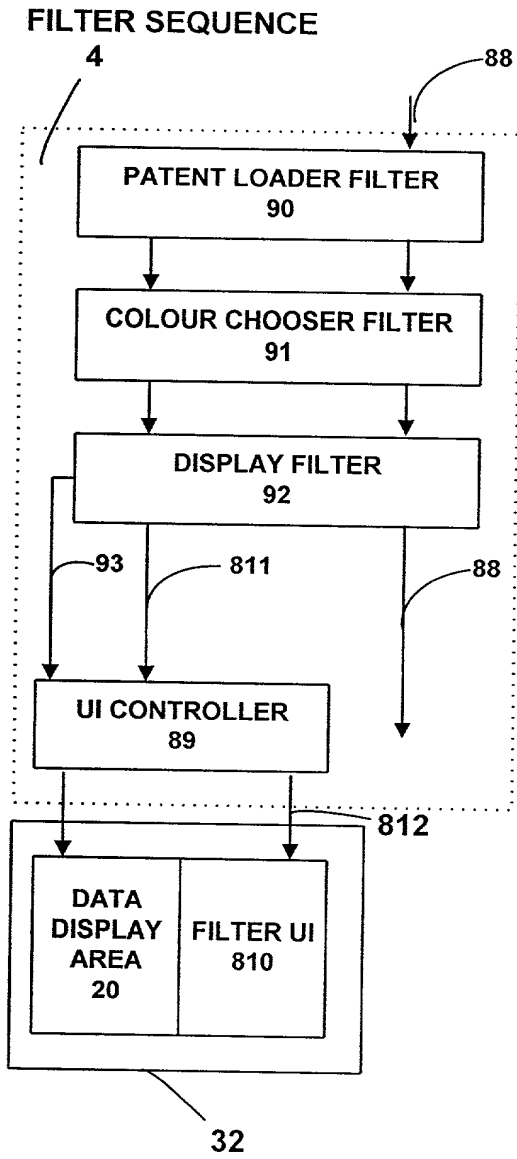


Fig 10

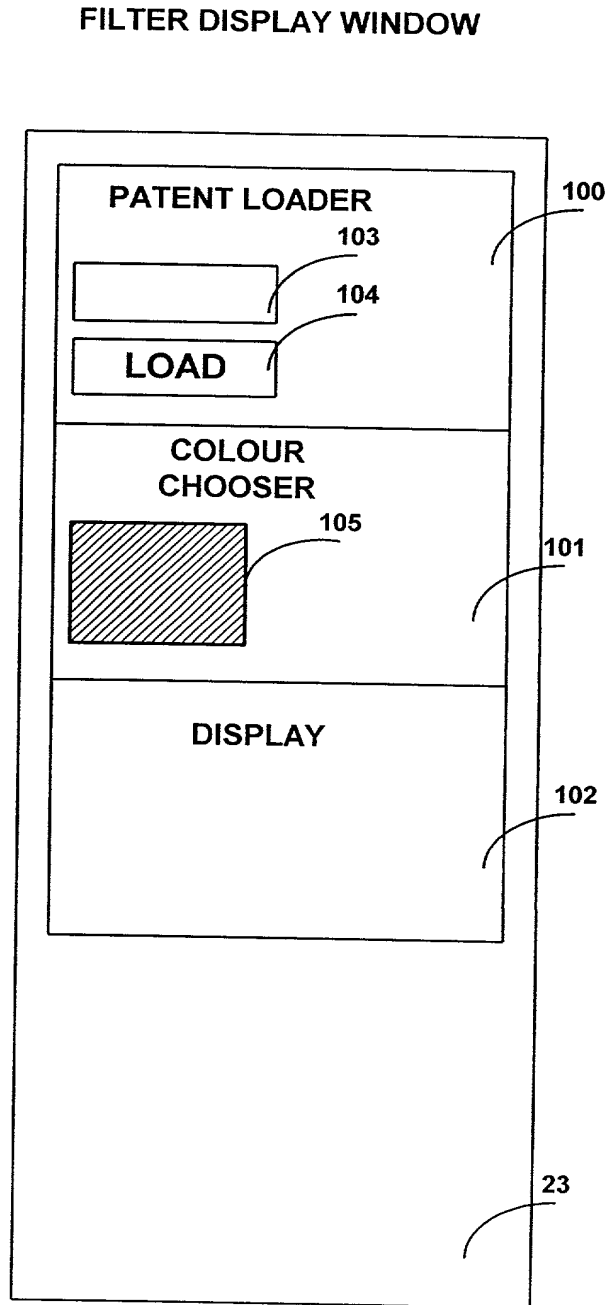


Fig 11

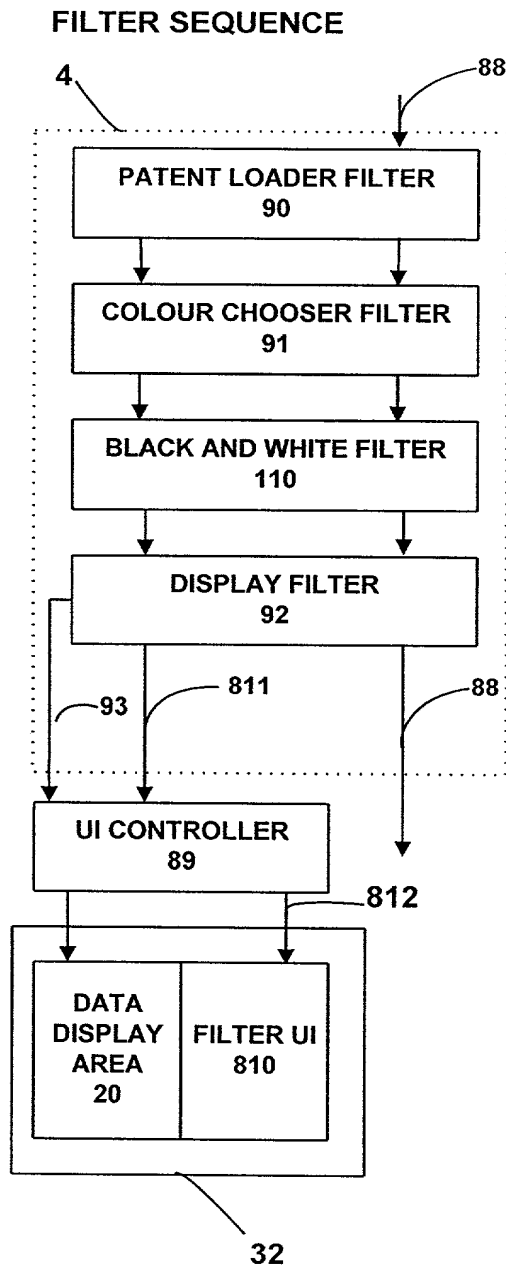


Fig 12

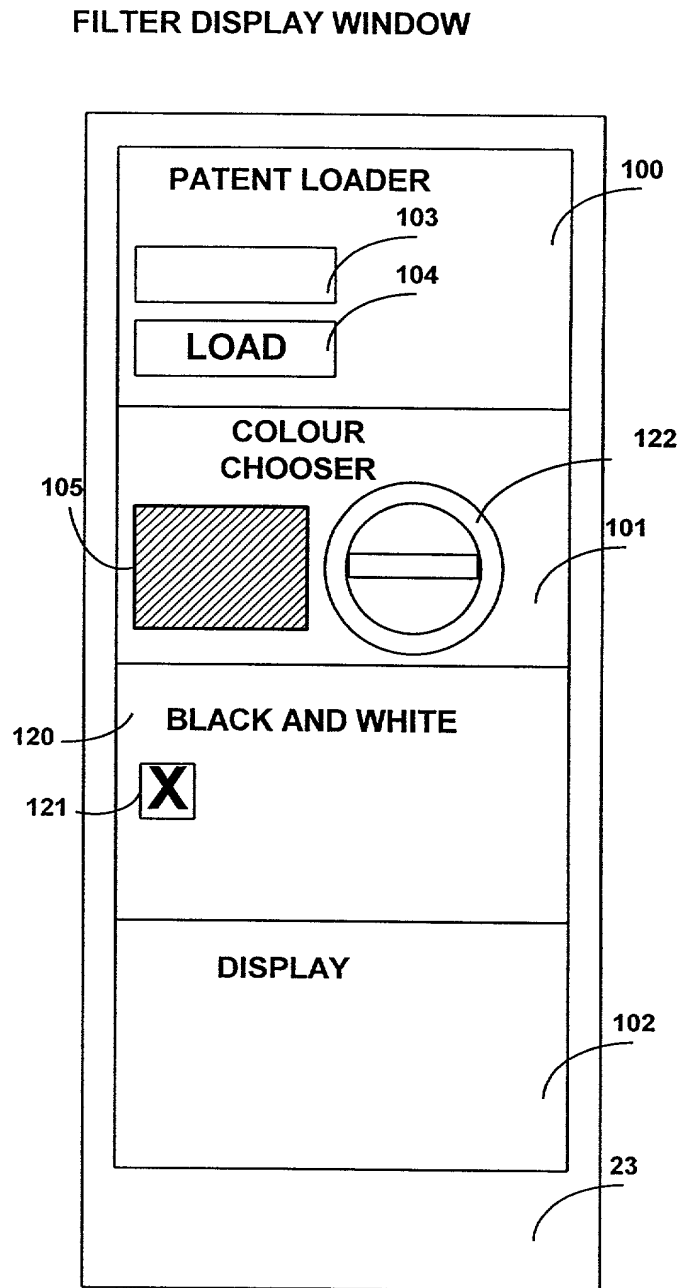


Fig 13

FILTER SEQUENCE WITH TOOLBAR FILTER

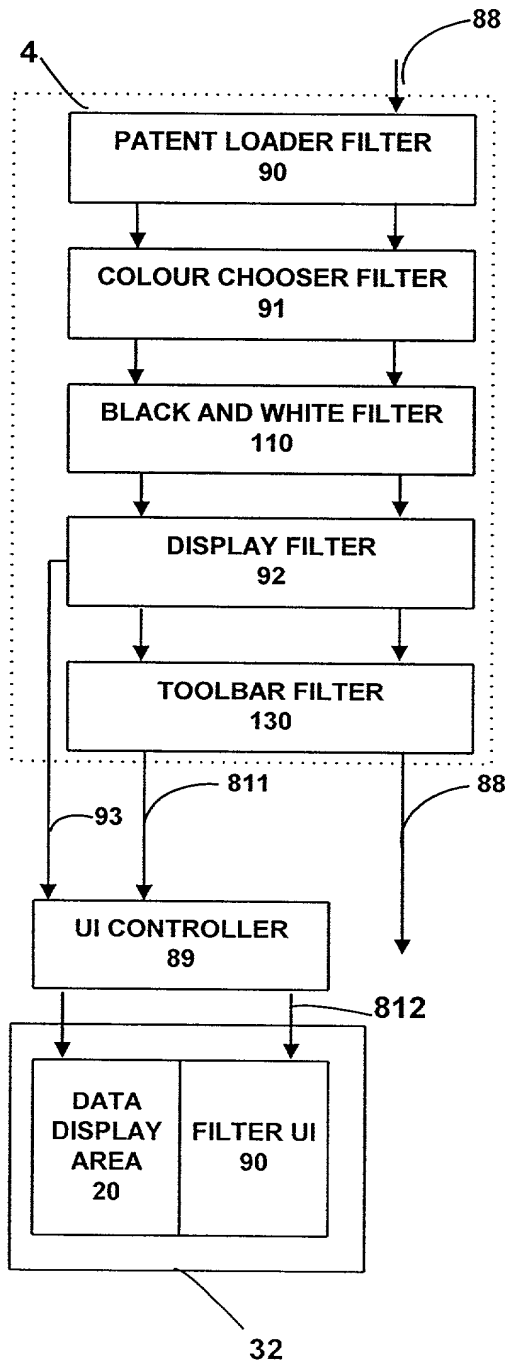


Fig 14

FILTER DISPLAY WINDOW WITH TOOLBAR FILTER BOX

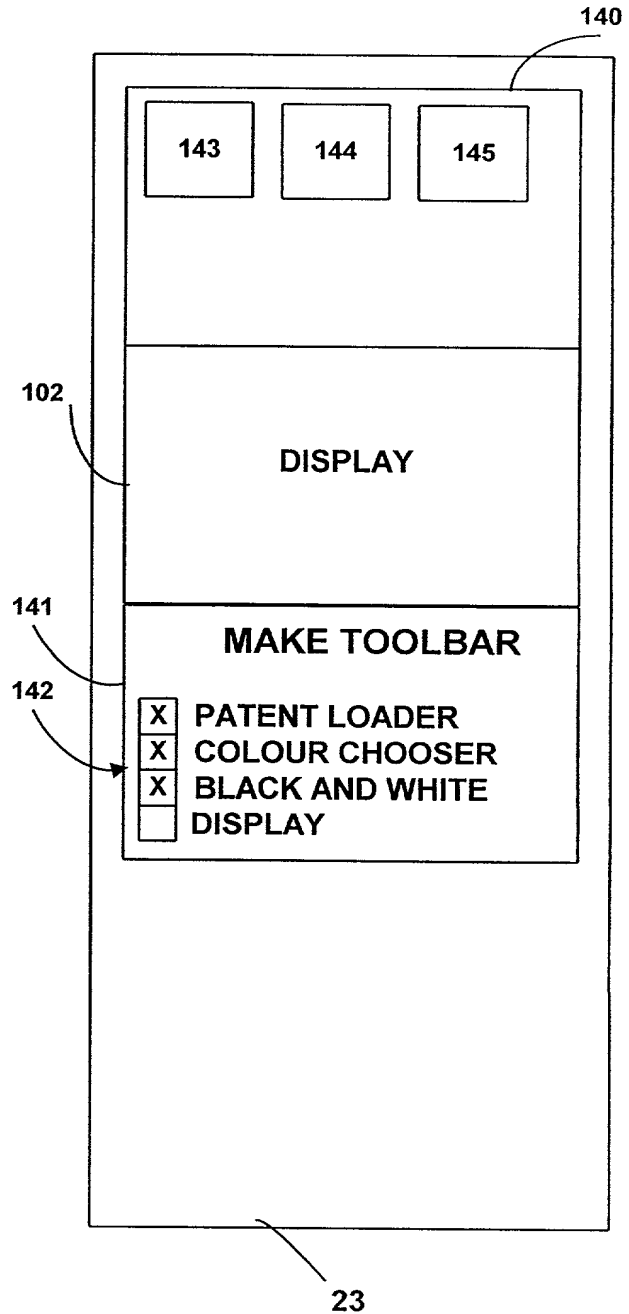
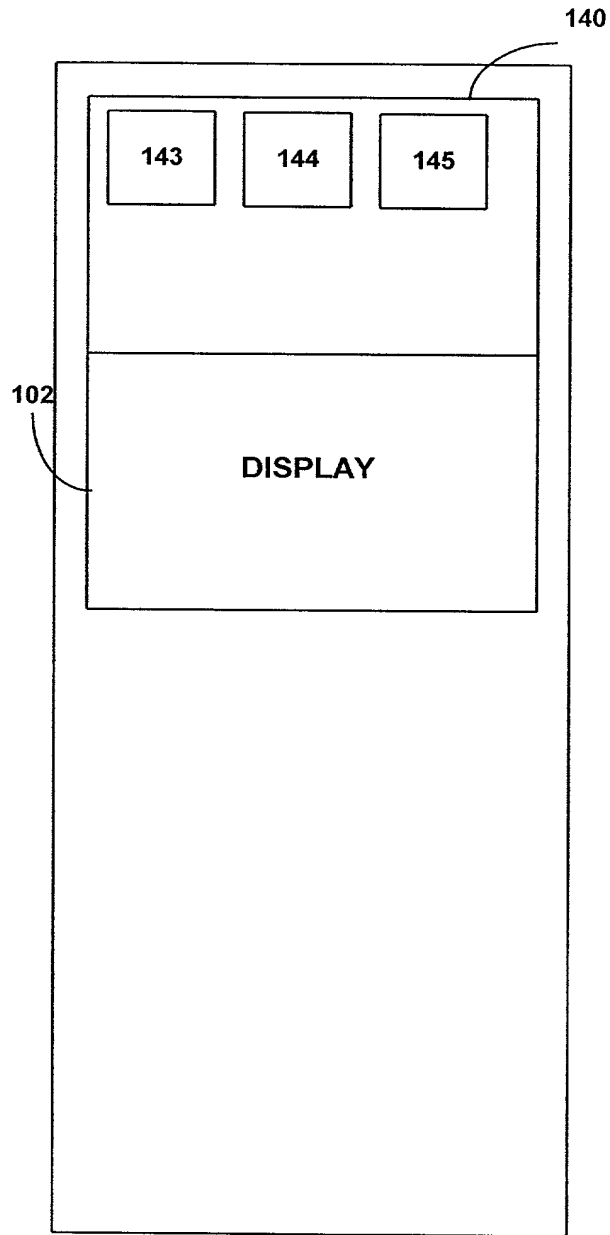


Fig 15

**FILTER DISPLAY WINDOW WITH TOOLBAR FILTER BOX
HIDDEN**



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Fig 16

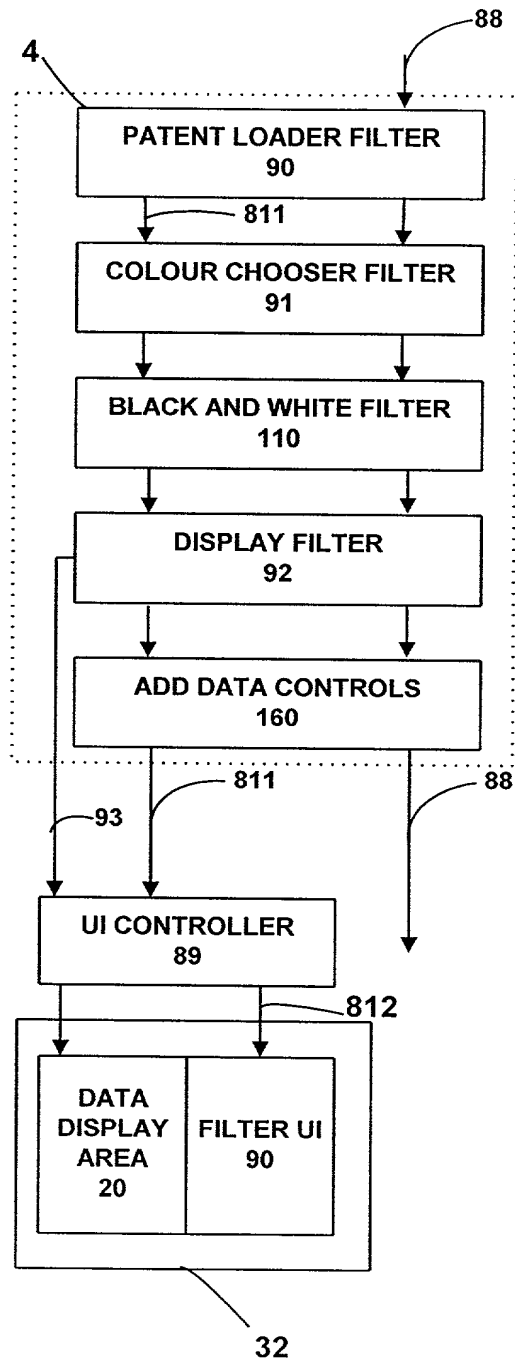
FILTER SEQUENCE WITH ADD -DATA-
CONTROLS FILTER

Fig 17

GUI FOR FILTER SEQUENCE INCLUDING ADD-DATA-CONTROLS FILTER

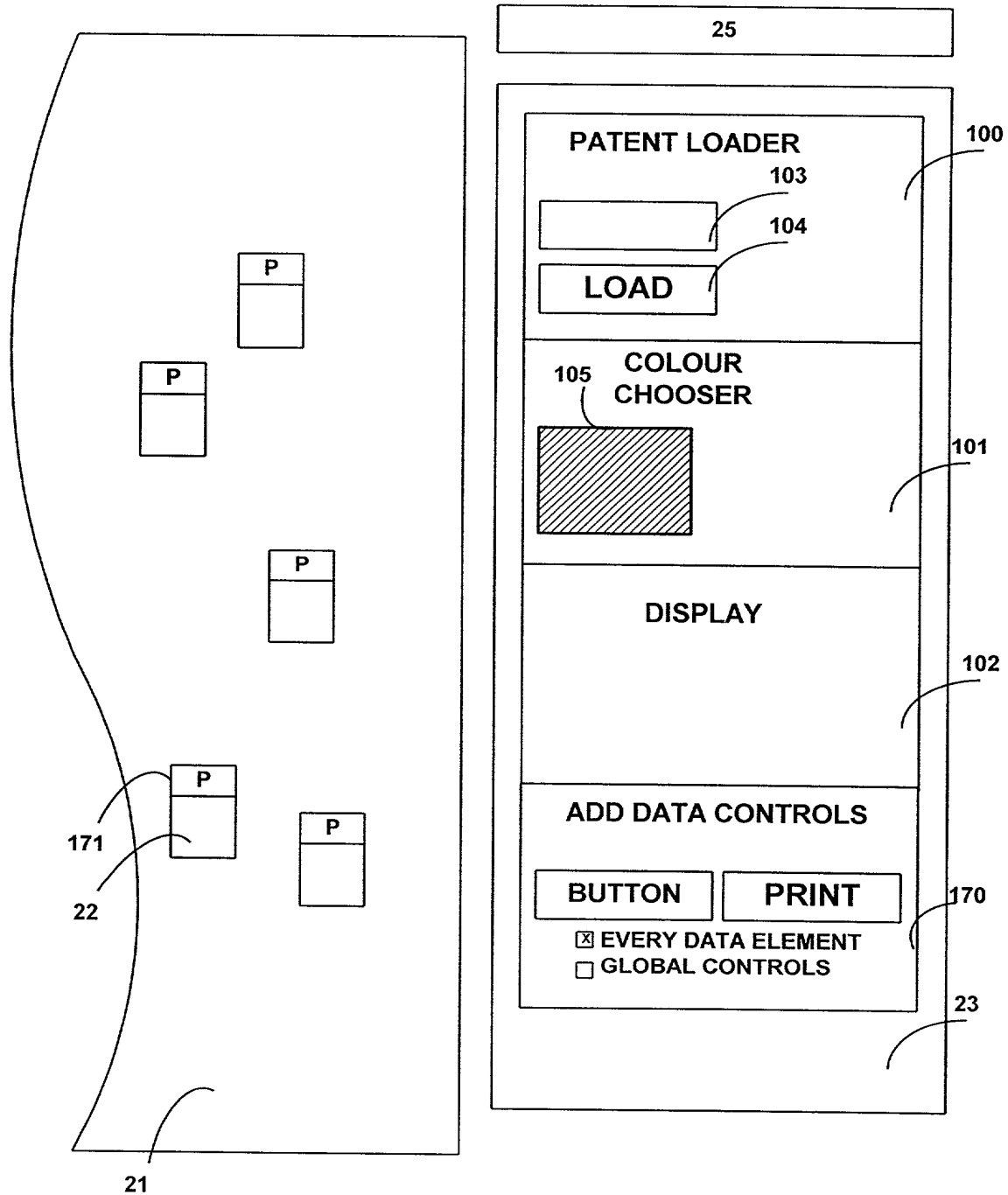


Fig 18

APPLICATION DOWNLOADED TO PORTABLE COMPUTER DEVICE

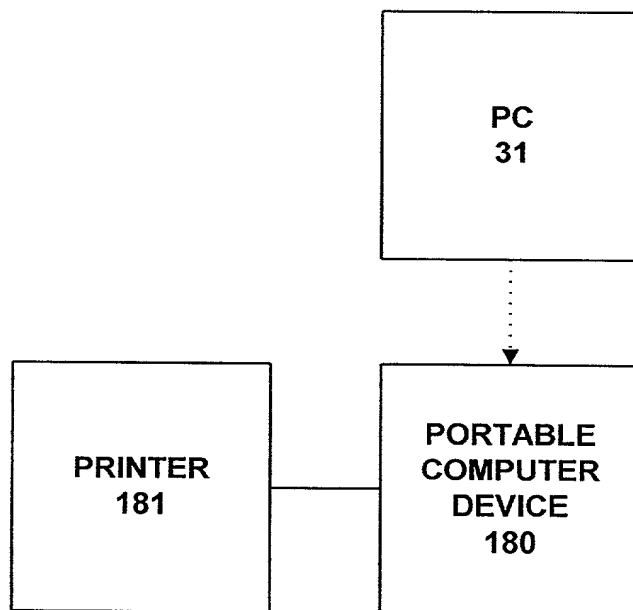


Fig 19

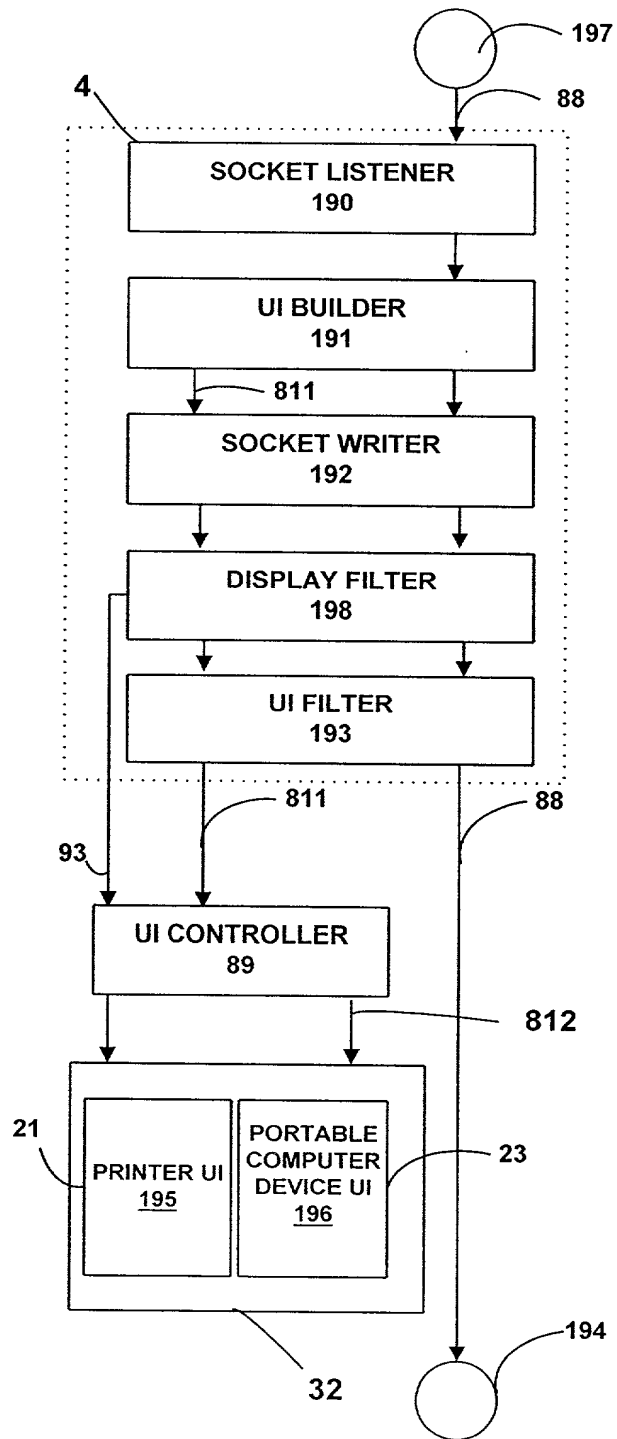
FILTER SEQUENCE FOR A PRINTER
CONTROL APPLICATION

Fig 20 **DEVELOPING AN APPLICATION FOR A PRINTER
USER INTERFACE**

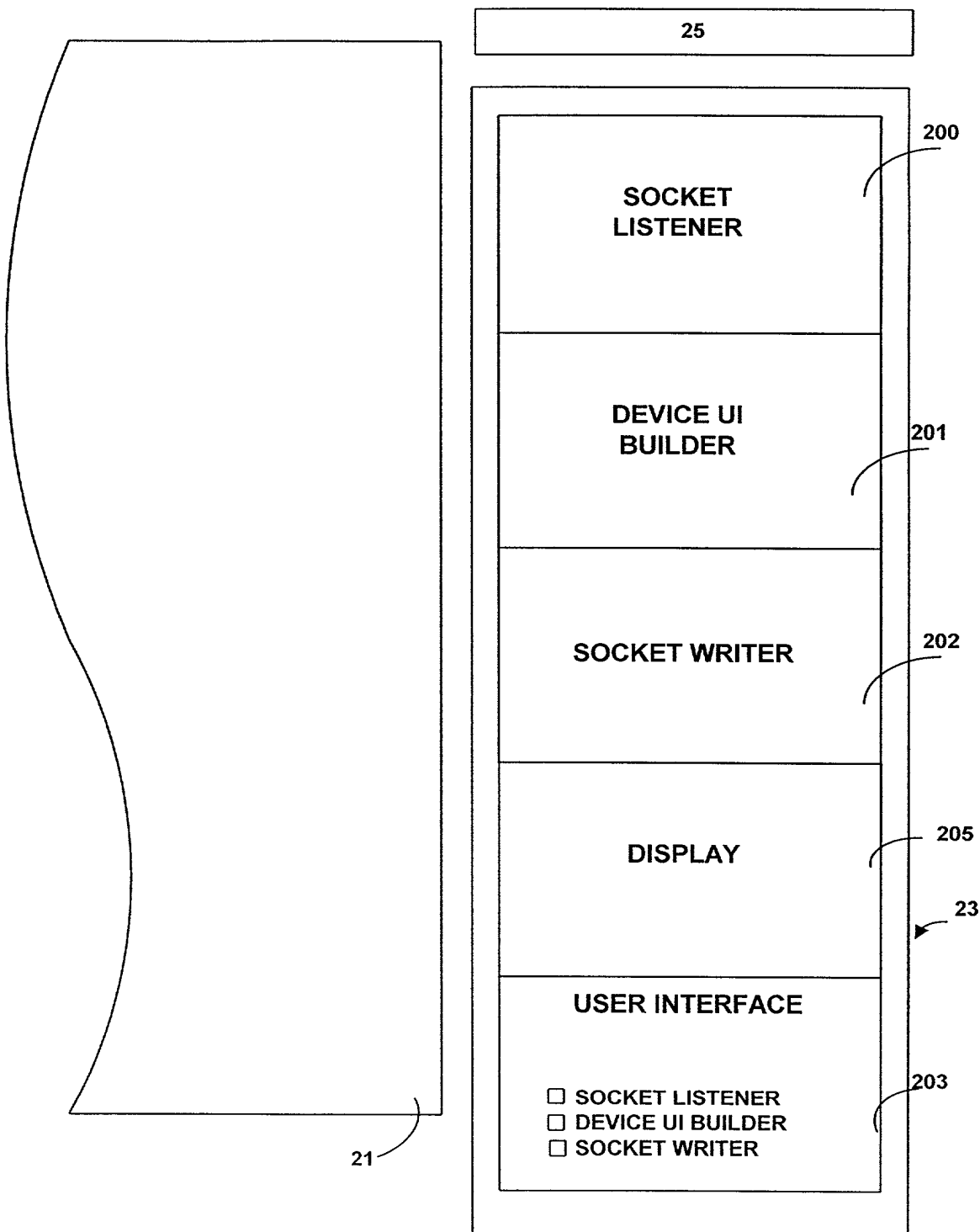


Fig 21 **PRINTER USER INTERFACE FOR BLACK AND WHITE PRINTER**

PRINTER INFO:

STATUS: IDLE
TYPE: LASER PRINTER
LOCATION: FIRST FLOOR

DOCUMENT:

PAGES: TO

COPIES:

JOB INFO:

SORT: ☐

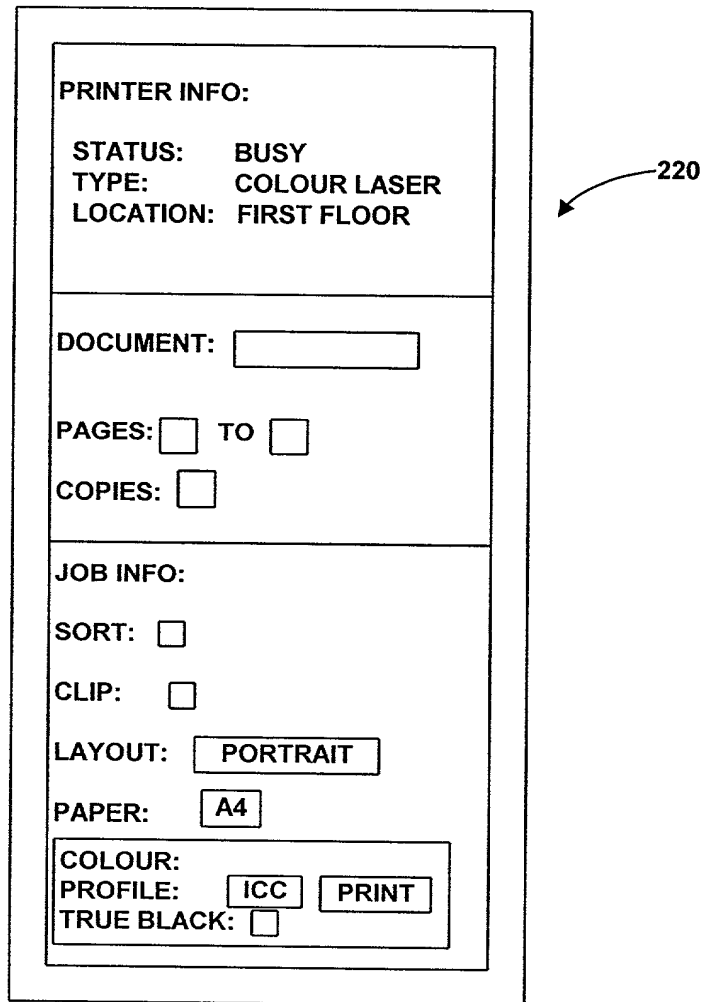
CLIP: ☐

LAYOUT:

PAPER:

210

Fig 22

PRINTER USER INTERFACE FOR COLOUR
PRINTER

The figure shows a printer user interface for a colour printer, labeled 220. It is a vertical rectangular screen divided into several sections. The top section is titled 'PRINTER INFO:' and contains three lines of text: 'STATUS: BUSY', 'TYPE: COLOUR LASER', and 'LOCATION: FIRST FLOOR'. Below this is a section titled 'DOCUMENT:' followed by a rectangular input field. Underneath is a section for 'PAGES:' with two input fields and the word 'TO' between them, and 'COPIES:' with one input field. The next section is titled 'JOB INFO:' and contains four items: 'SORT:' with an input field, 'CLIP:' with an input field, 'LAYOUT:' with a rectangular field containing the word 'PORTRAIT', and 'PAPER:' with a rectangular field containing 'A4'. The bottom section is titled 'COLOUR:' and contains two items: 'PROFILE:' with two rectangular fields, one containing 'ICC' and the other 'PRINT', and 'TRUE BLACK:' with an input field. An arrow points from the label '220' to the right side of the interface.

PRINTER INFO:

STATUS: BUSY
TYPE: COLOUR LASER
LOCATION: FIRST FLOOR

DOCUMENT:

PAGES: TO
COPIES:

JOB INFO:

SORT:
CLIP:
LAYOUT:
PAPER:

COLOUR:

PROFILE:
TRUE BLACK:

220

Fig 23

USER INTERFACE FOR FACSIMILE MACHINE

The user interface is a vertical rectangular screen divided into three main sections. The top section, labeled 'FAX INFO:', displays the status as 'BUSY', the type as 'CANON', and the location as 'GROUND FLOOR'. The middle section, labeled 'DESTINATION NUMBER:', features a text input field and a 'NUMBER OF RETRIES' field with a small square icon. The bottom section, labeled 'JOB INFO:', includes a 'PRINT REPORT' checkbox and a 'QUALITY' dropdown menu currently set to 'HIGH'. A large 'SEND' button is positioned at the bottom of the interface. An arrow labeled '230' points to the right side of the interface box.

FAX INFO:

STATUS: BUSY
TYPE: CANON
LOCATION: GROUND FLOOR

DESTINATION NUMBER:

NUMBER OF RETRIES: ☐

JOB INFO:

PRINT REPORT: ☐

QUALITY:

SEND

230

Fig 24

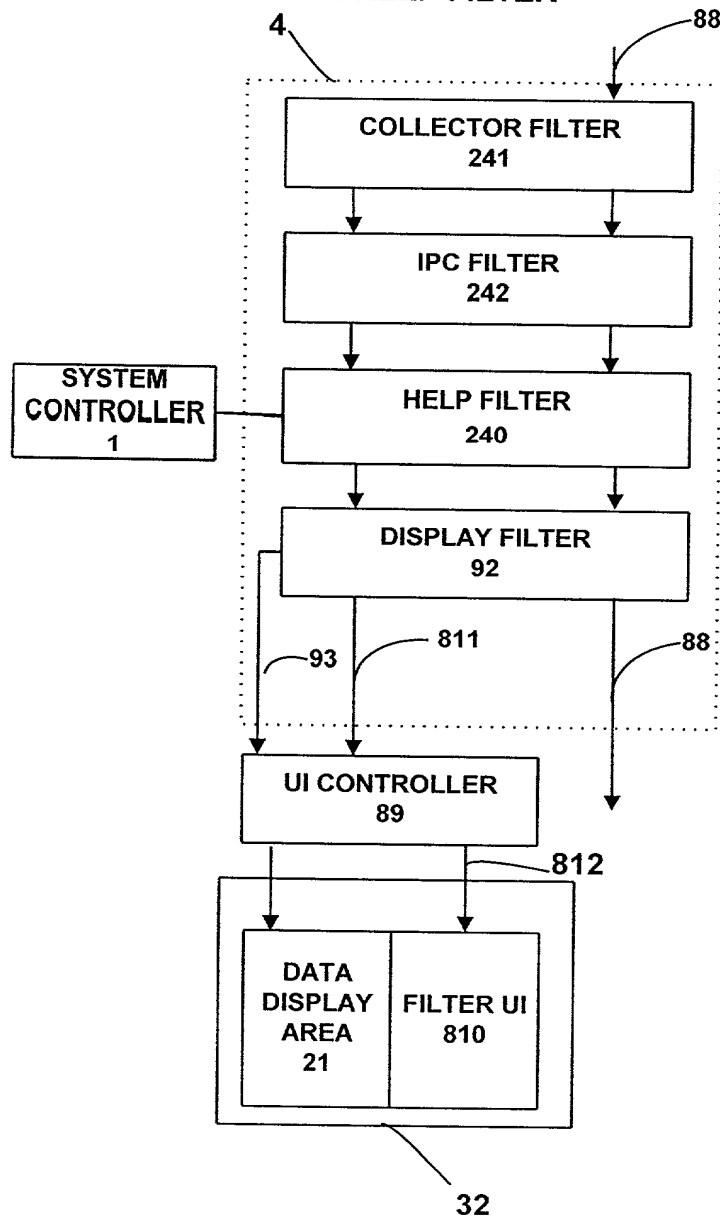
FILTER SEQUENCE
WITH HELP FILTER

Fig 25

**FILTER DISPLAY WINDOW WITH
HELP FILTER BOX**

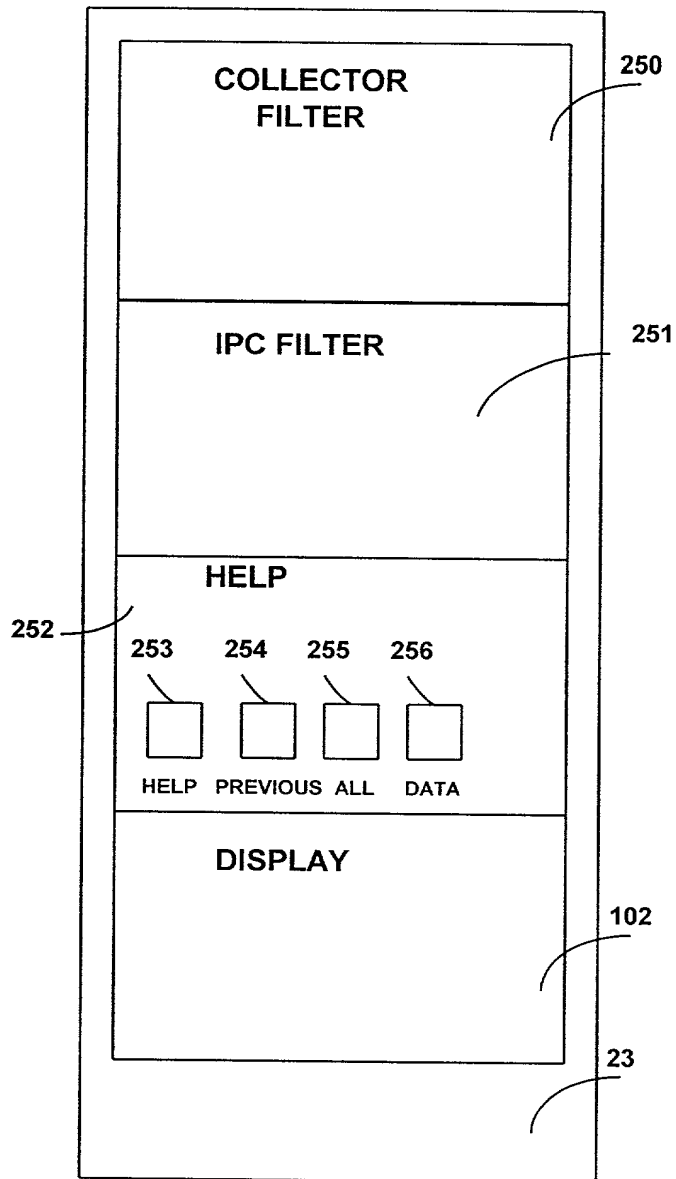


Fig 26

DATA DISPLAY WHEN 'HELP'
BUTTON OR 'PREVIOUS' BUTTON
SELECTED

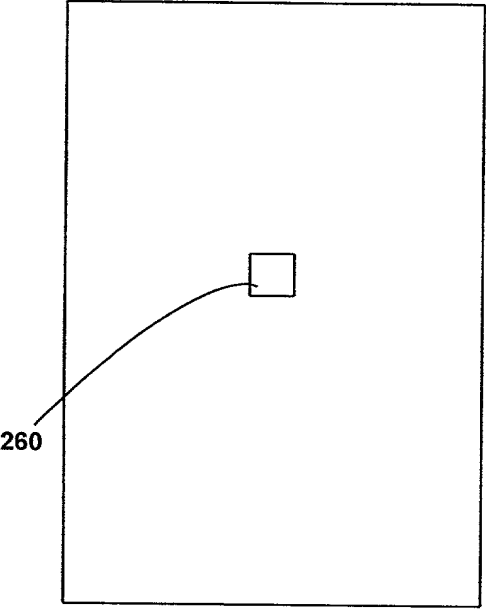
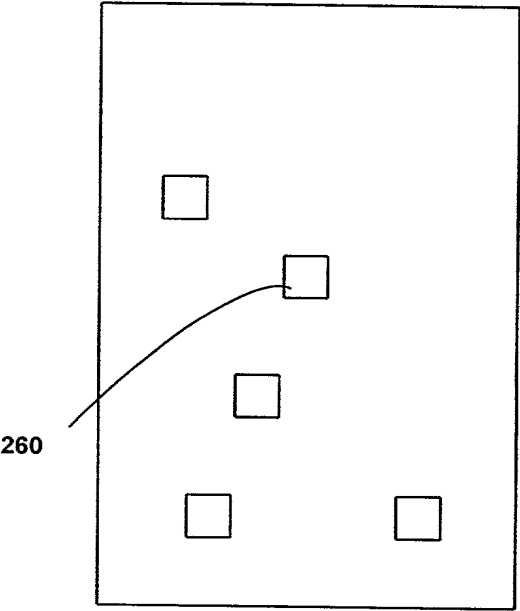


Fig 28

DATA DISPLAY WHEN 'ALL'
BUTTON SELECTED



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The IPC Filter

Purpose

To pass through only those patent objects that have an IPC class conforming to the boolean expression input

Applicability

Use on patent objects containing IPC metadata.

Output

The patent objects satisfying the IPC expression.

Details

The filter loads in a dataset containing the IPC hierarchy. Currently this is a complete list and is rather large - we may limit it in the future. A data structure is built that allows us to identify subclasses for any particular class.

A user can enter a simple boolean expression to query on. For example he can ask for "G06K+ AND NOT G06K 011/00" which means that he wants any patents that are in class G06K and any of its subclasses except for any patents that are in G06K 011/00 and any of those subclasses.

Other boolean operators available are : AND, OR, AND NOT, OR NOT.

The use of "*" allows the user to match on any string.

Example

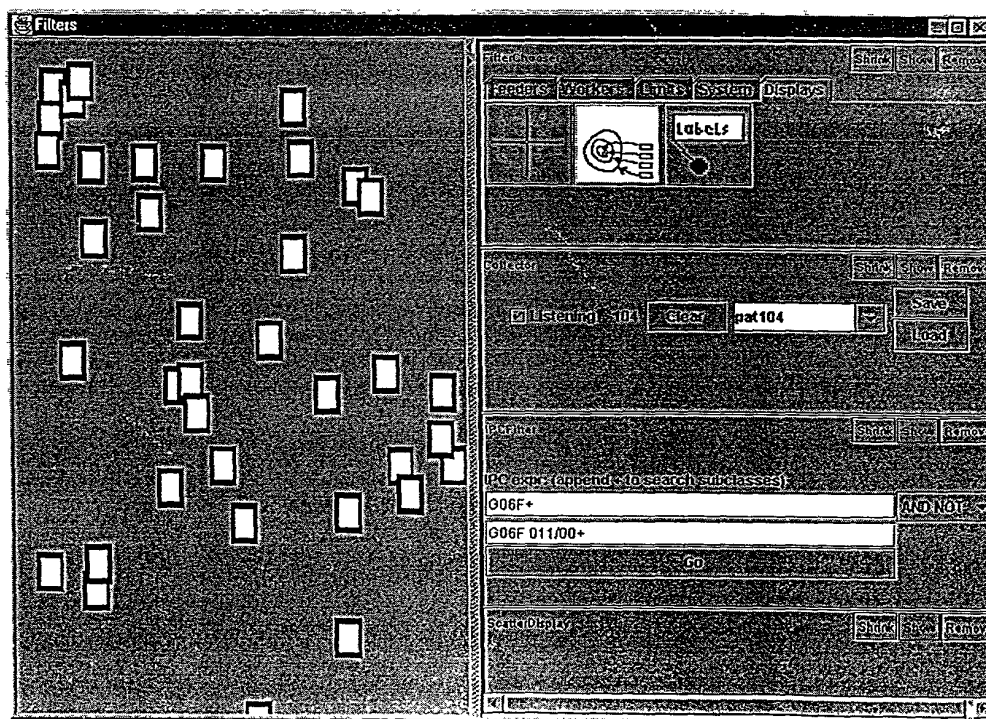


Fig 29

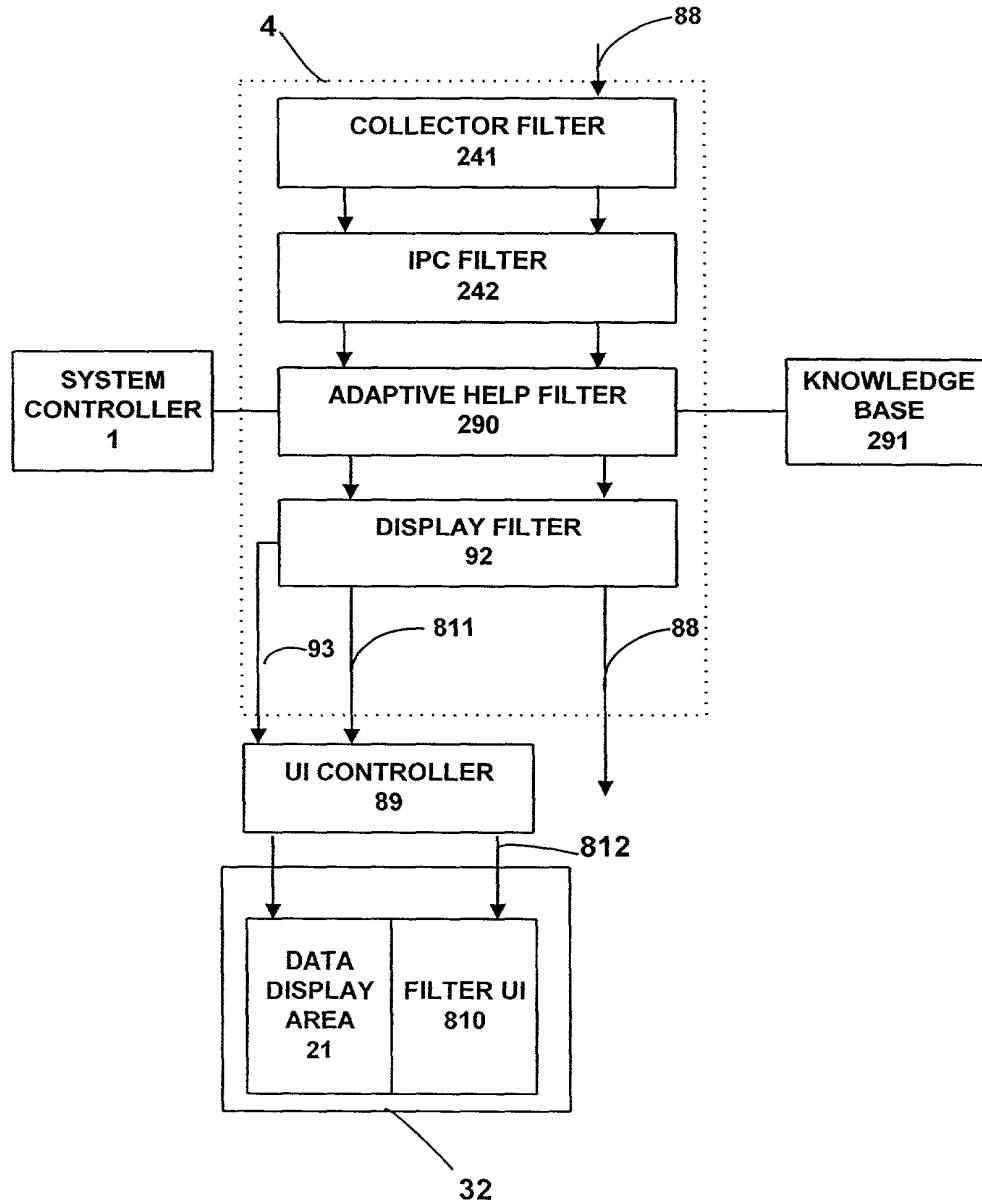
FILTER SEQUENCE INCLUDING ADAPTIVE
HELP FILTER

Fig 30

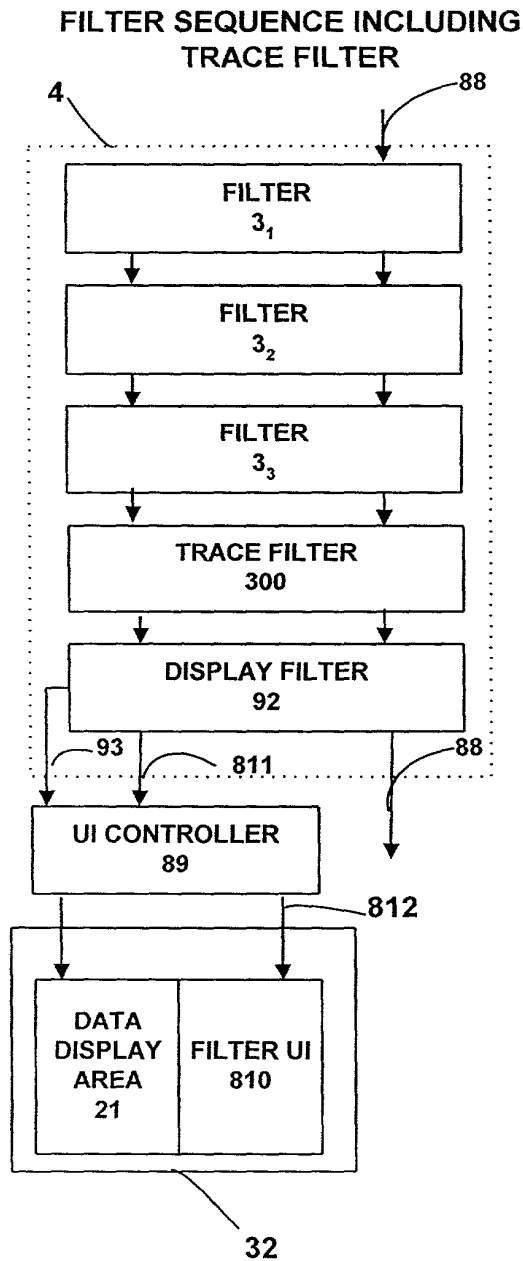


Fig 31

**DATA DISPLAY OUTPUT OF TRACE
FILTER**

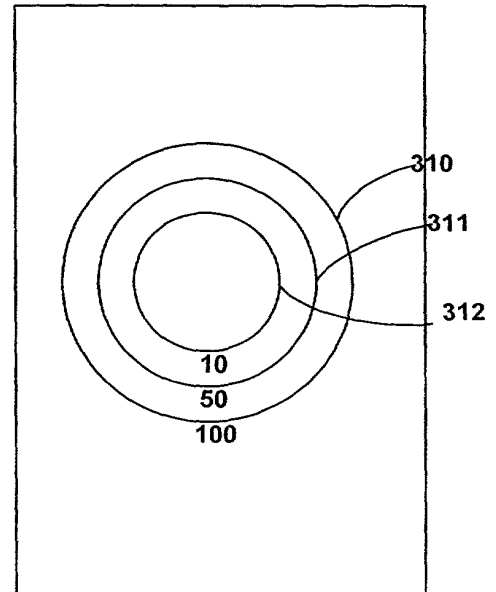


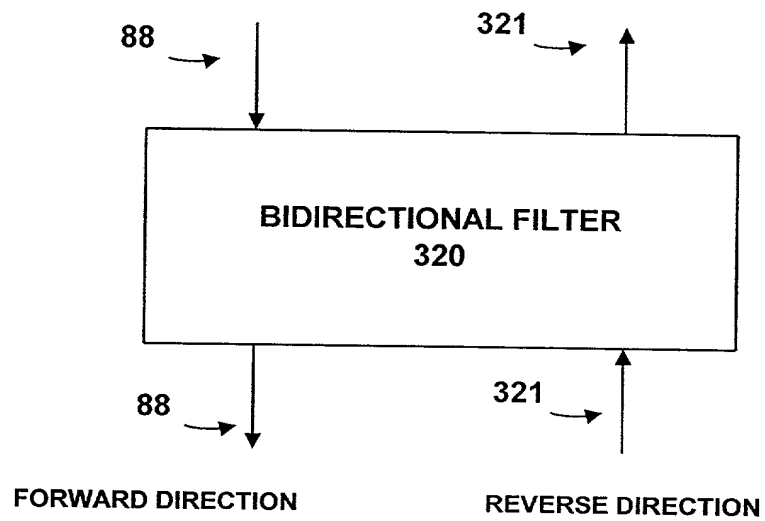
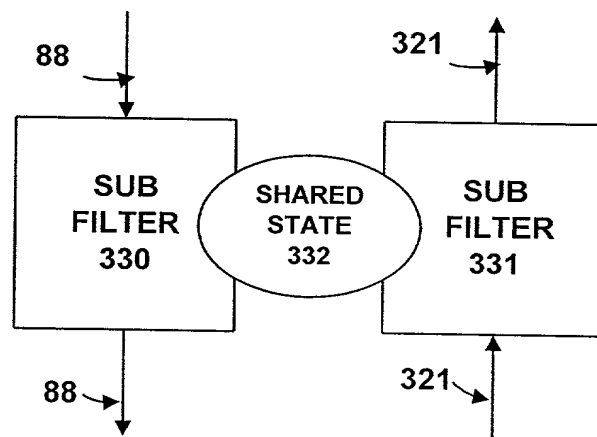
Fig 32**BIDIRECTIONAL FILTERS****Fig 33**

Fig 34

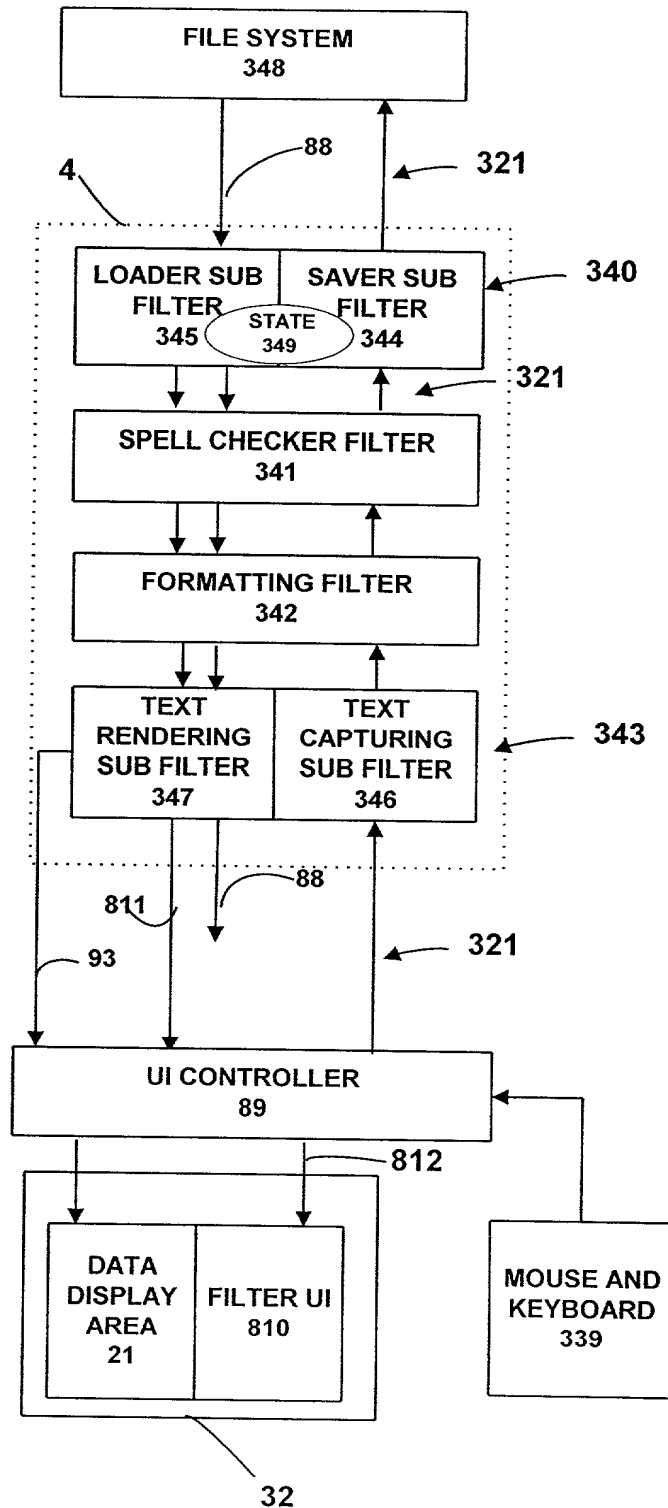
WORD PROCESSING APPLICATION
FORMED FROM FILTER SEQUENCE
INCLUDING BIDIRECTIONAL FILTERS

Fig 35

GUI FOR A WORD PROCESSING APPLICATION FORMED FROM
FILTER SEQUENCE INCLUDING BIDIRECTIONAL FILTERS

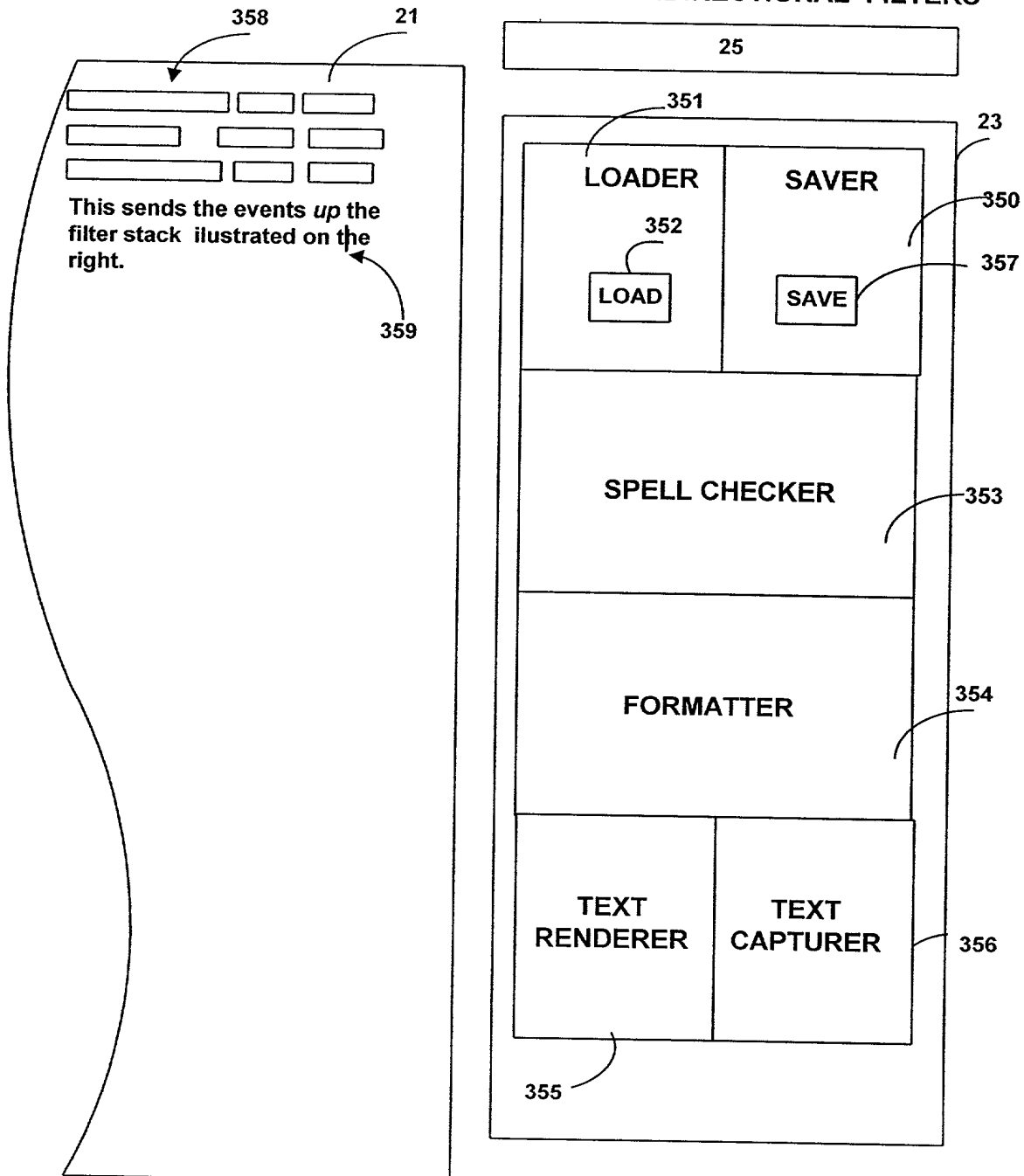


Fig 36

DIAGRAM EDITING APPLICATION FORMED FROM FILTER
SEQUENCE INCLUDING BIDIRECTIONAL FILTERS

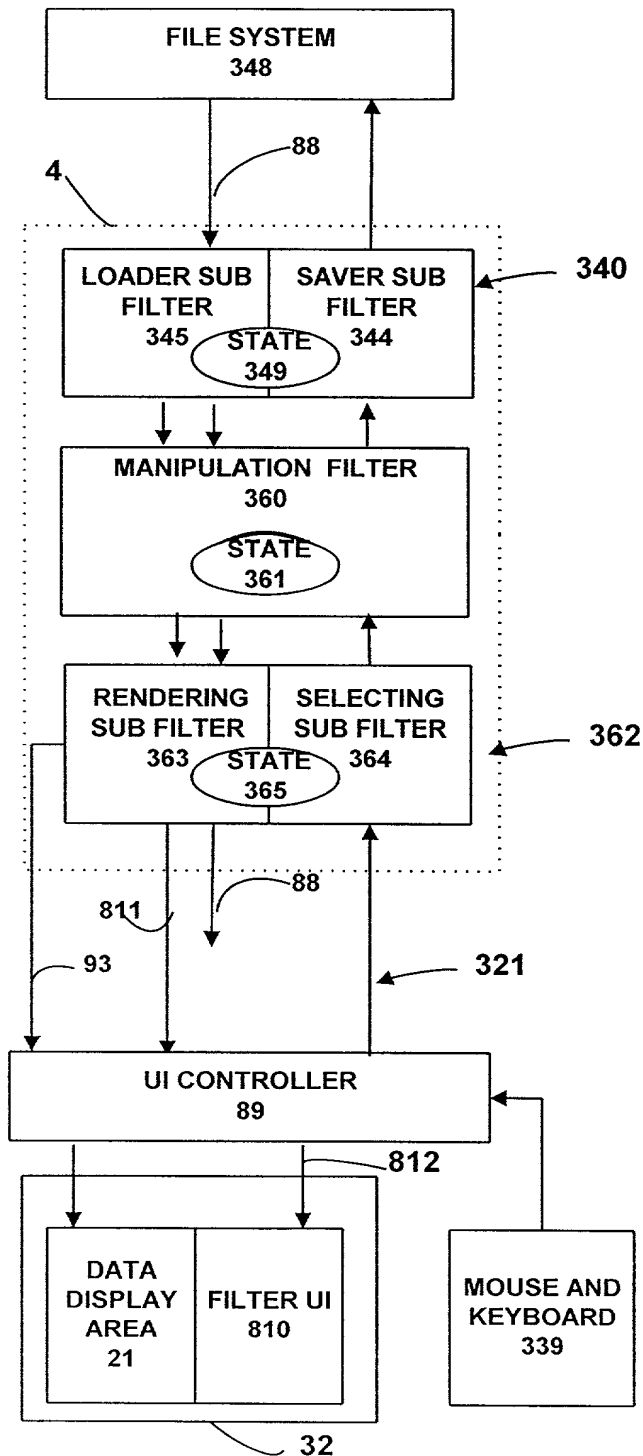
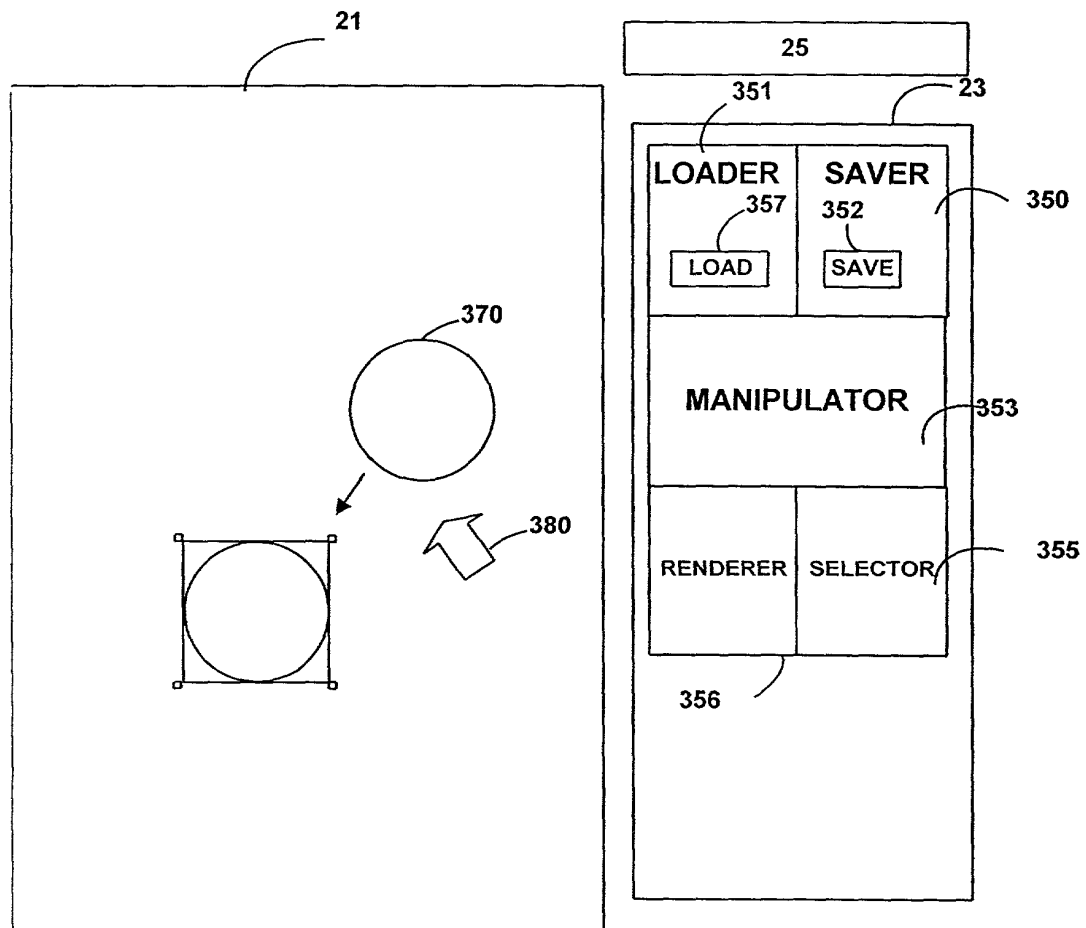


Fig 37

GUI FOR A DIAGRAM EDITING APPLICATION FORMED FROM
FILTER SEQUENCE INCLUDING BIDIRECTIONAL FILTERS



DISPLAY AREA FOR A DIAGRAM
EDITING OPERATION

Fig 38A

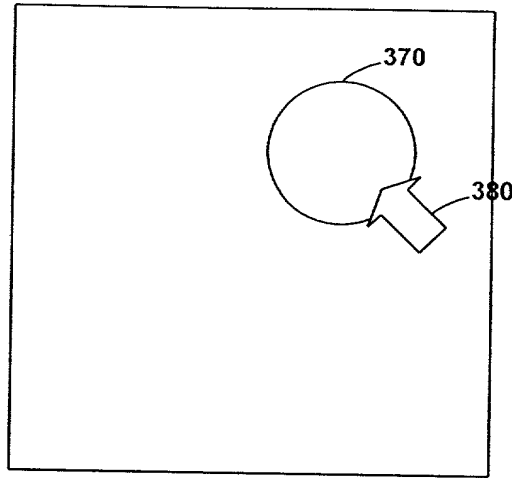


Fig 38B

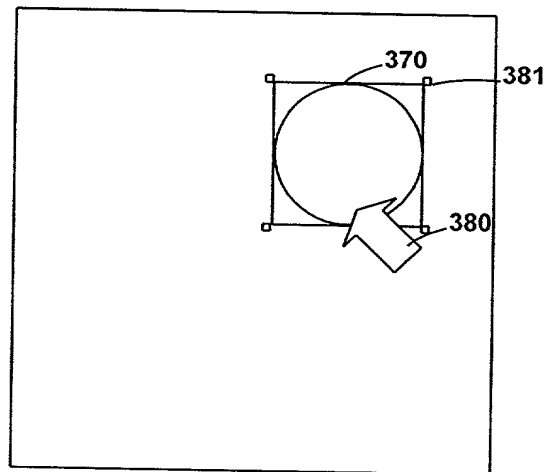


Fig 38C

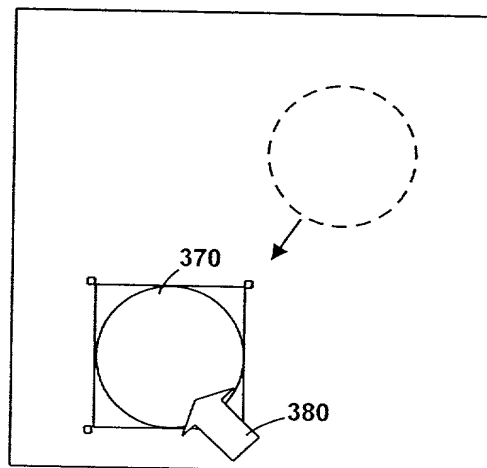


Fig 39

DIAGRAM EDITING APPLICATION WITH UNDO FILTER

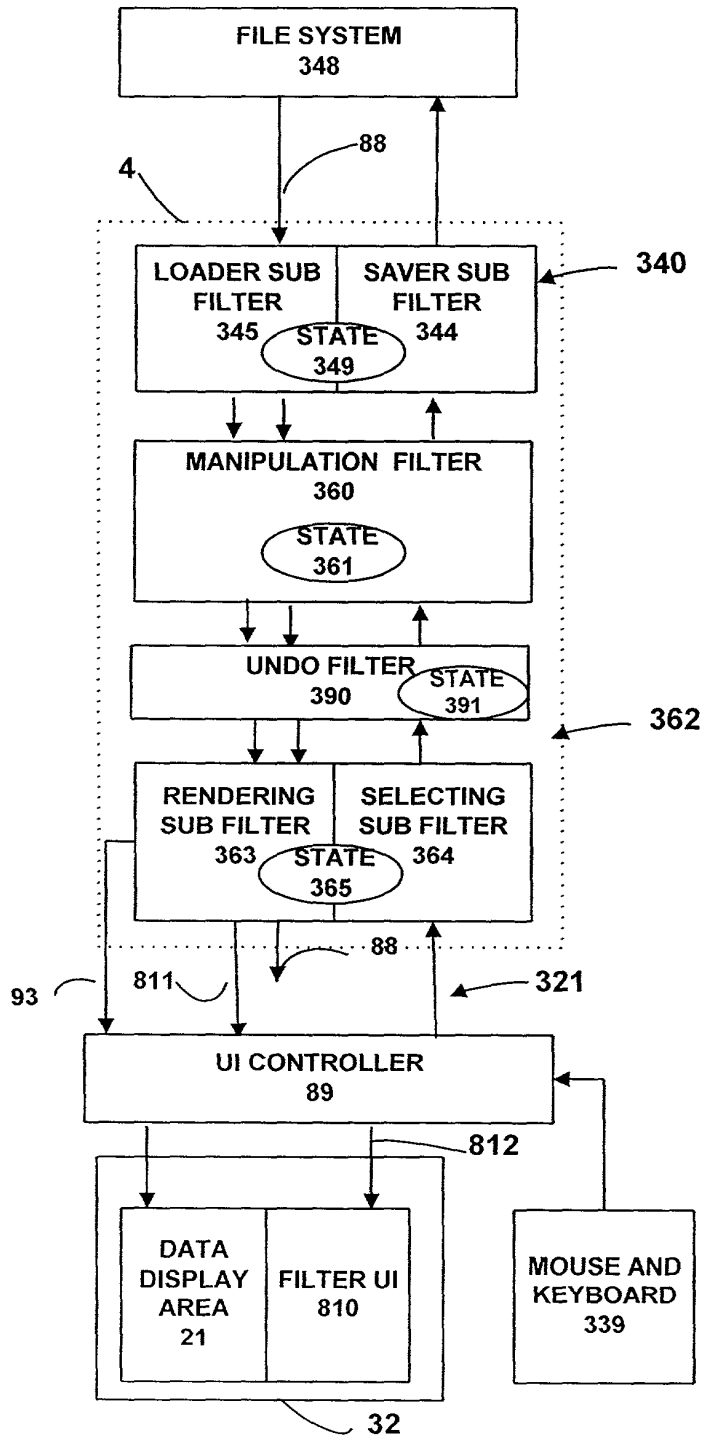


Fig 40

GUI FOR A DIAGRAM EDITING APPLICATION WITH UNDO FILTER

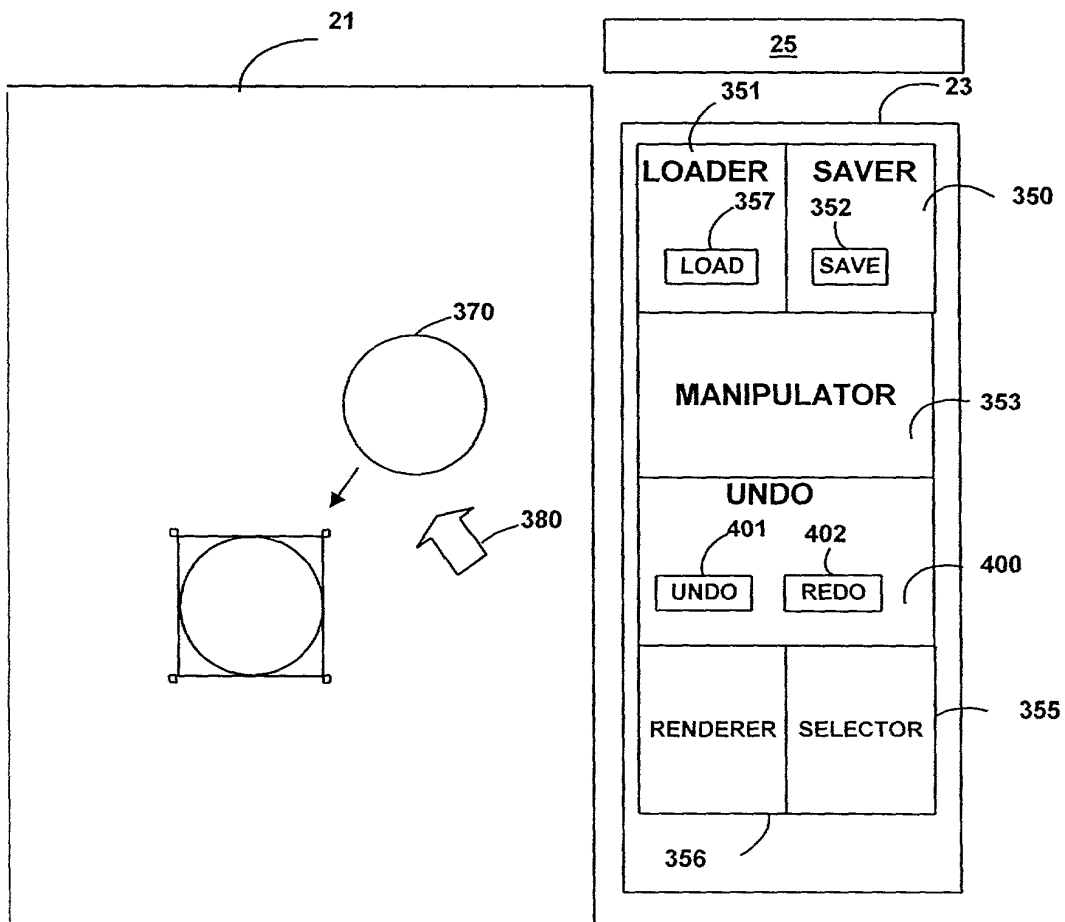


Fig 41

OVERALL VIEW OF SYSTEM

